

MICROWAVE MONOLITHIC INTEGRATED CIRCUIT
(MMIC) CARRIER INTERFACE

Abstract of the Disclosure

A microwave monolithic integrated circuit (MMIC) assembly and related method are disclosed. A dielectric substrate has a surface on which radio
5 frequency circuits and microstrip lines are formed. At least one MMIC chip opening is dimensioned for receiving therethrough a MMIC chip. A metallic carrier is mismatched as to coefficient of thermal expansion to the dielectric substrate and includes a component
10 surface adhesively secured to the dielectric substrate on the surface opposing the radio frequency circuits and microstrip lines. At least one raised pedestal is on the component surface that is positioned at the MMIC chip opening. A MMIC chip is secured on the pedestal
15 and extends through the MMIC chip opening for connection to the radio frequency circuits and microstrip lines. Stress relief portions are formed in the metallic carrier that segment the carrier into subcarriers and provide stress relief during expansion
20 and contraction created by temperature changes.